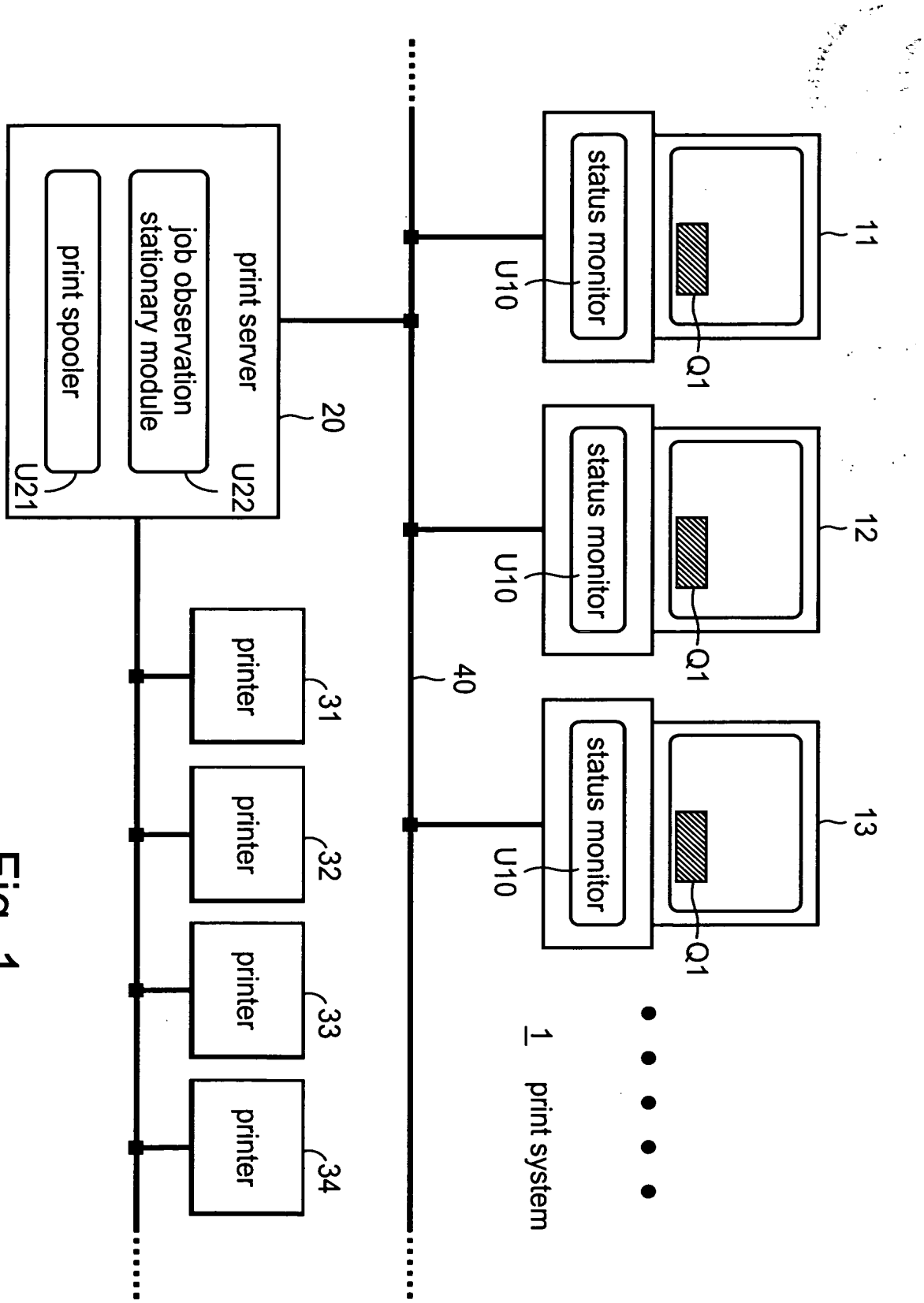

11
12
13
Q1
U10
status monitor
1 print system
40
20
print server
U21
print spooler
U22
job observation
stationary module
31
32
33
34
printer

Fig. 1

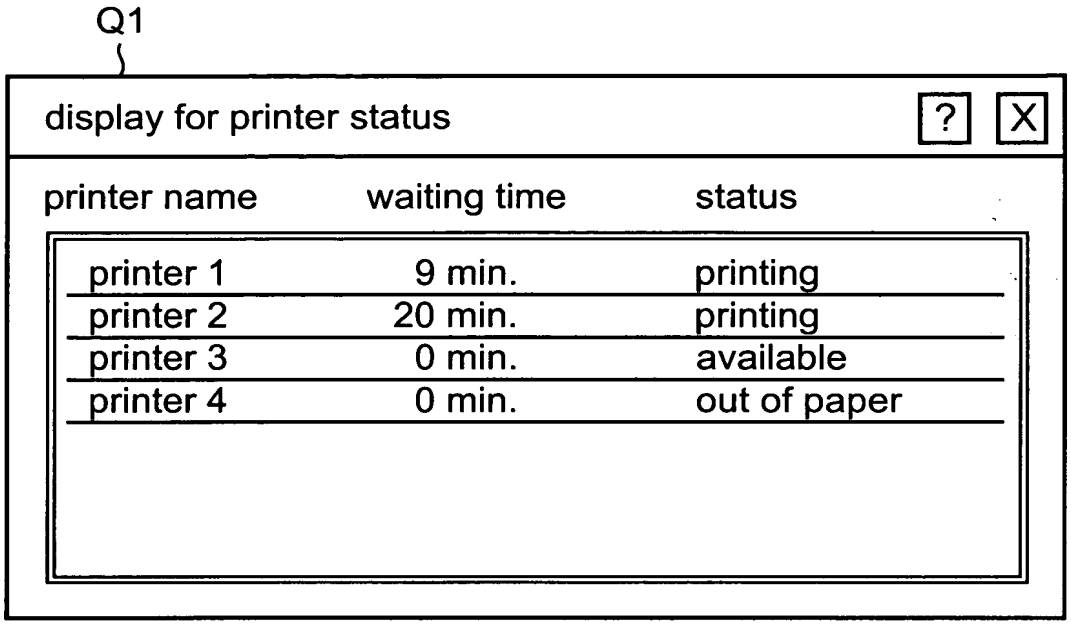
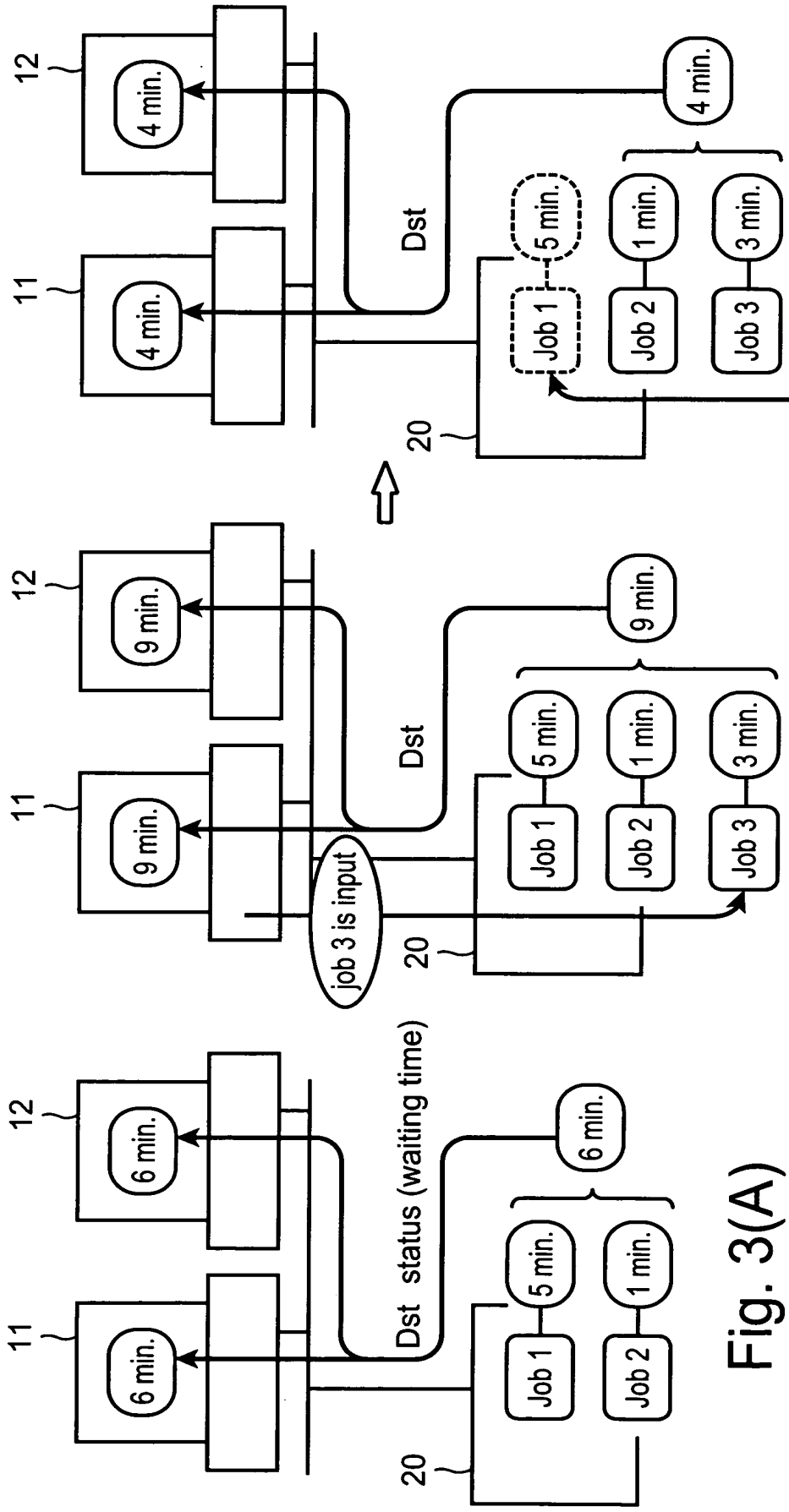

Q1
display for printer status
?
X
printer name
waiting time
status
printer 1
9 min.
printing
printer 2
20 min.
printing
printer 3
0 min.
available
printer 4
0 min.
out of paper

Fig. 2


12
11
20
6 min.
6 min.
Dst status (waiting time)
5 min.
1 min.
Job 1
Job 2
6 min.
Fig. 3(A)
job 3 is input
9 min.
9 min.
Dst
5 min.
1 min.
3 min.
Job 1
Job 2
Job 3
9 min.
Fig. 3(B)
4 min.
4 min.
Dst
5 min.
1 min.
3 min.
Job 1
Job 2
Job 3
4 min.
end (job 1)
Fig. 3(C)

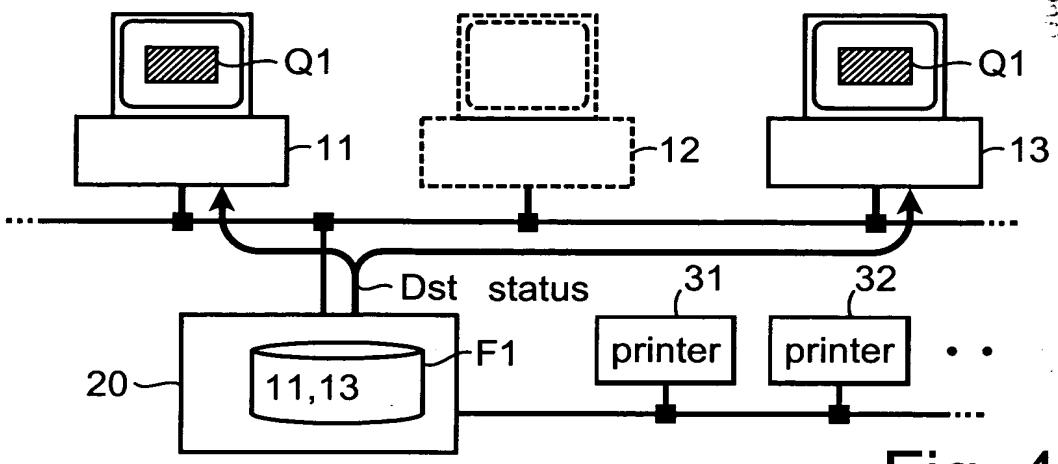


Fig. 4(A)

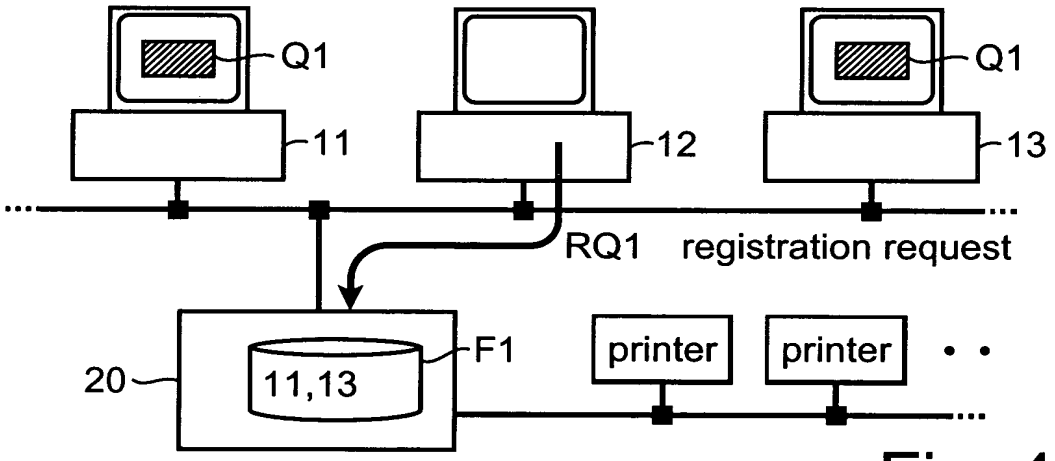


Fig. 4(B)

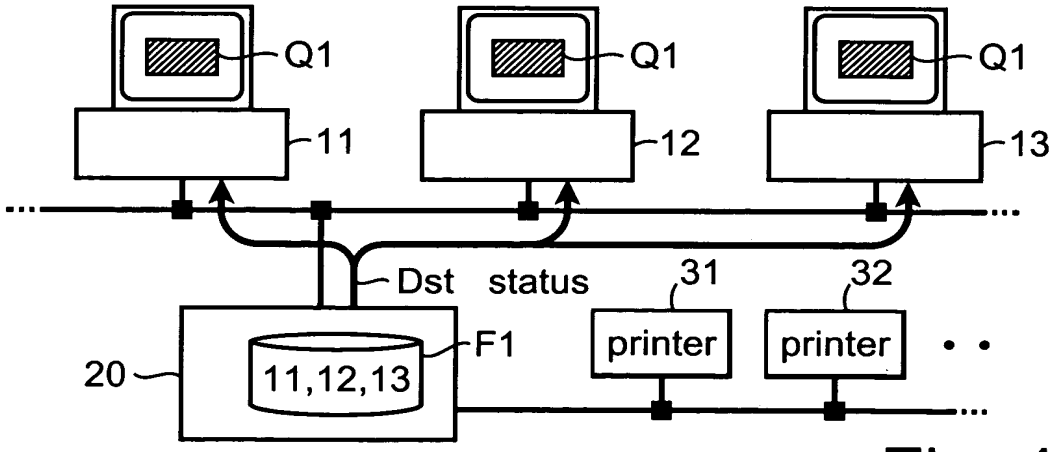


Fig. 4(C)

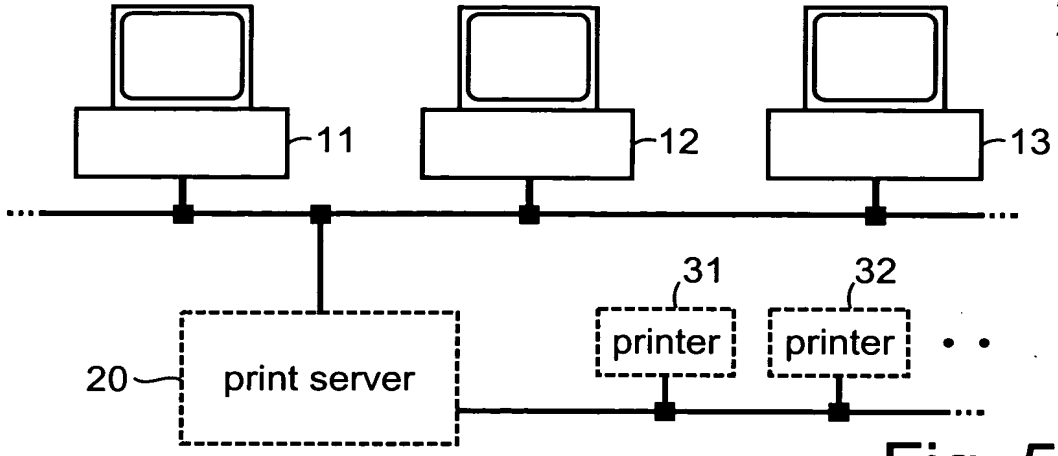


Fig. 5(A)

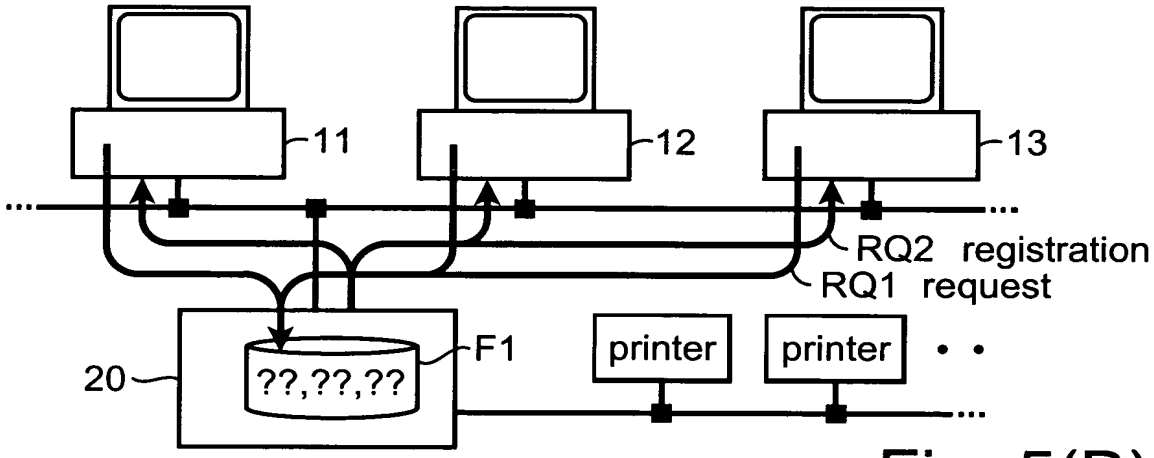


Fig. 5(B)

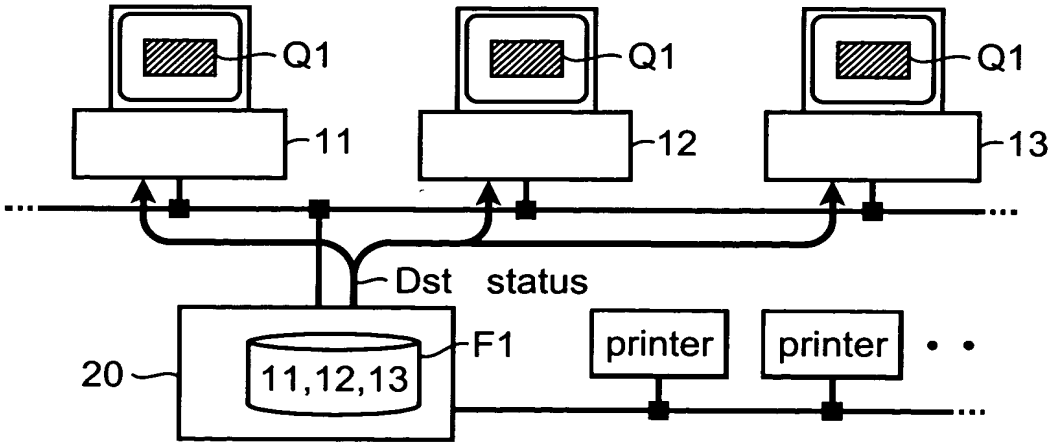


Fig. 5(C)

Fig. 6

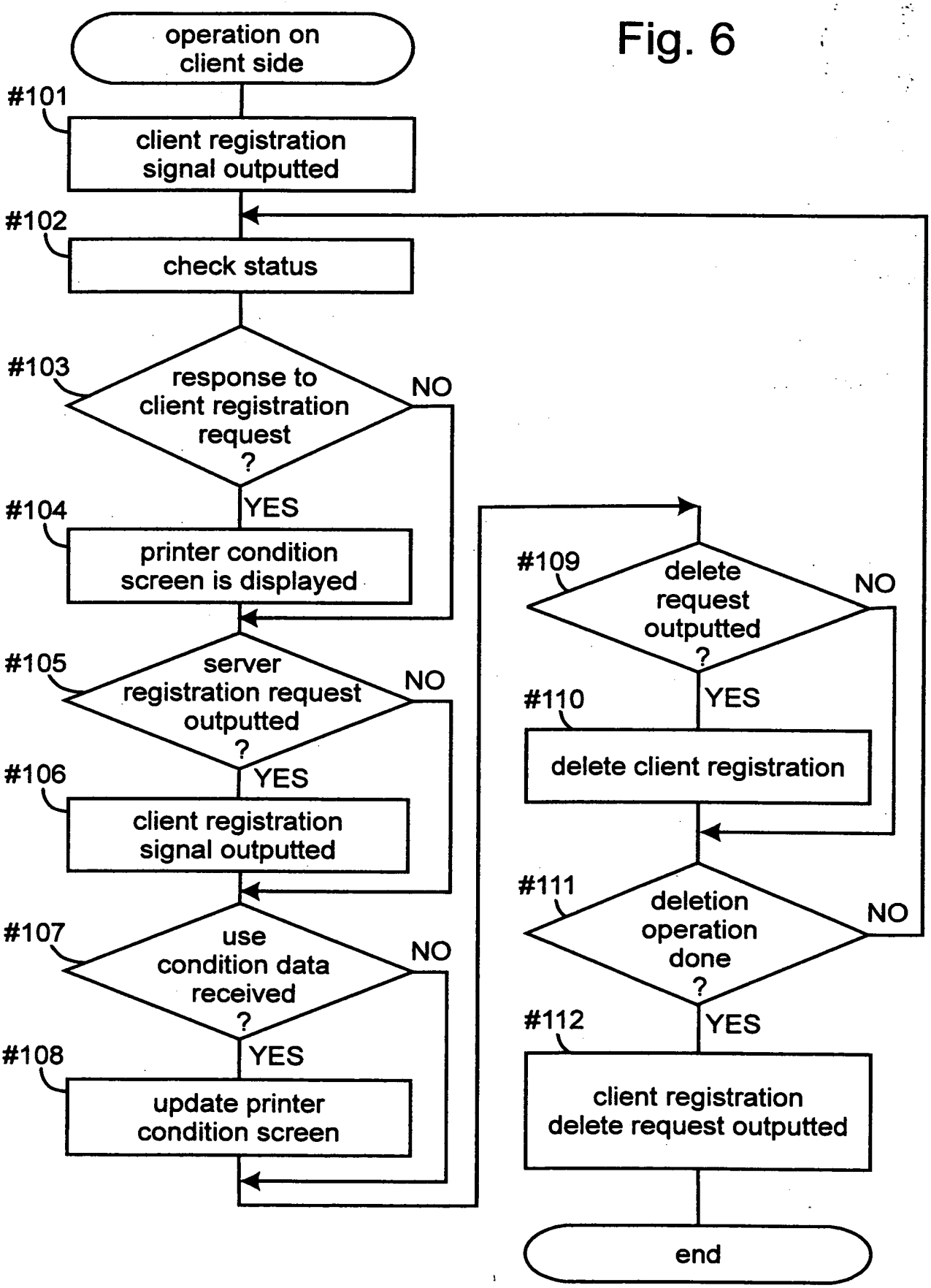
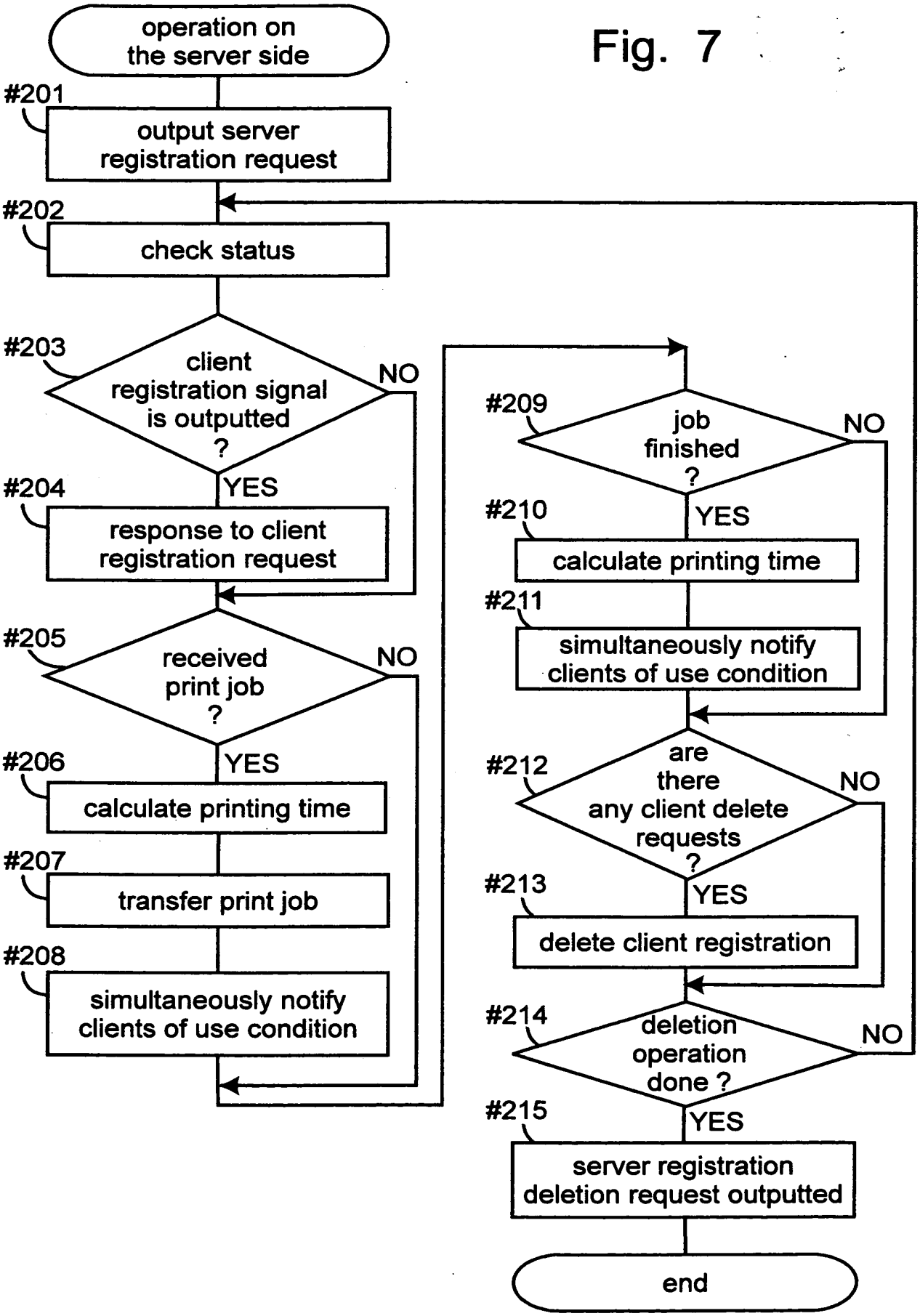

operation on client side
#101
client registration signal outputted
#102
check status
#103
response to client registration request ?
NO
YES
#104
printer condition screen is displayed
#105
server registration request outputted ?
NO
YES
#106
client registration signal outputted
#107
use condition data received ?
NO
YES
#108
update printer condition screen
#109
delete request outputted ?
NO
YES
#110
delete client registration
#111
deletion operation done ?
NO
YES
#112
client registration delete request outputted
end

Fig. 7


operation on the server side
#201
output server registration request
#202
check status
#203
client registration signal is outputted ?
NO
YES
#204
response to client registration request
#205
received print job ?
NO
YES
#206
calculate printing time
#207
transfer print job
#208
simultaneously notify clients of use condition
#209
job finished ?
NO
YES
#210
calculate printing time
#211
simultaneously notify clients of use condition
#212
are there any client delete requests ?
NO
YES
#213
delete client registration
#214
deletion operation done ?
NO
YES
#215
server registration deletion request outputted
end